

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TYLER DIVISION**

AZURE NETWORKS, LLC et al.,	§	
	§	NO. 6:11cv139 LED-JDL
vs.	§	
	§	PATENT CASE
CSR PLC, et al.	§	

MEMORANDUM OPINON AND ORDER

This claim construction opinion construes the disputed terms in U.S. Patent No. 7,756,129 (“the ‘129 Patent”). For the reasons stated herein, the Court adopts the constructions set forth below.

BACKGROUND

Plaintiffs Azure Networks LLC and TRI-County Excelsior Foundation (collectively “Plaintiffs”) allege Defendants¹ infringe the ‘129 Patent (“patent-in-suit”). The parties have presented extensive claim construction briefing (Doc. Nos. 237, 249, 253).

On October 16, 2012, Plaintiffs filed their opening claim construction brief in this case (Doc. No. 237). (“PLS.’ BR.”). Defendants collectively filed a single response (Doc. No. 249) (“DEFS.’ BR.”), and Plaintiffs filed a Reply (Doc. No. 253) (“REPLY”).

CLAIM CONSTRUCTION PRINCIPLES

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). The Court examines a patent’s intrinsic evidence to define

¹ Defendants are CSR plc, Cambridge Silicon Radio International LLC, Atheros Communications, Inc., Broadcom Corporation, Marvell Semiconductor, Inc., Qualcomm Incorporated, Ralink Technology Corporation (Taiwan), Ralink Technology Corporation (USA), and Texas Instruments, Inc. (collectively “Defendants”).

the patented invention's scope. *Id.* at 1313–14; *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). Intrinsic evidence includes the claims, the rest of the specification and the prosecution history. *Phillips*, 415 F.3d at 1312–13; *Bell Atl. Network Servs.*, 262 F.3d at 1267. The Court gives claim terms their ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

Claim language guides the Court's construction of claim terms. *Phillips*, 415 F.3d at 1314. “[T]he context in which a term is used in the asserted claim can be highly instructive.” *Id.* Other claims, asserted and unasserted, can provide additional instruction because “terms are normally used consistently throughout the patent.” *Id.* Differences among claims, such as additional limitations in dependent claims, can provide further guidance. *Id.*

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). In the specification, a patentee may define his own terms, give a claim term a different meaning that it would otherwise possess, or disclaim or disavow some claim scope. *Phillips*, 415 F.3d at 1316. Although the Court generally presumes terms possess their ordinary meaning, this presumption can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001). This presumption does not arise when the patentee acts as his own

lexicographer. See *Irdeto Access, Inc. v. EchoStar Satellite Corp.*, 383 F.3d 1295, 1301 (Fed. Cir. 2004).

The specification may also resolve ambiguous claim terms “where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone.” *Teleflex, Inc.*, 299 F.3d at 1325. For example, “[a] claim interpretation that excludes a preferred embodiment from the scope of the claim ‘is rarely, if ever, correct.’” *Globetrotter Software, Inc. v. Elam Computer Group Inc.*, 362 F.3d 1367, 1381 (Fed. Cir. 2004) (quoting *Vitronics Corp.*, 90 F.3d at 1583). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988); see also *Phillips*, 415 F.3d at 1323.

The prosecution history is another tool to supply the proper context for claim construction because a patentee may define a term during prosecution of the patent. *Home Diagnostics Inc. v. LifeScan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) (“As in the case of the specification, a patent applicant may define a term in prosecuting a patent”). The well-established doctrine of prosecution disclaimer “preclud[es] patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng’g Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003). The prosecution history must show that the patentee clearly and unambiguously disclaimed or disavowed the proposed interpretation during prosecution to obtain claim allowance. *Middleton Inc. v. 3M Co.*, 311 F.3d 1384, 1388 (Fed. Cir. 2002); see also *Springs Window Fashions LP v. Novo Indus., LP*, 323 F.3d 989, 994 (Fed. Cir. 2003) (“The disclaimer . . . must be effected with ‘reasonable clarity and deliberateness.’”)

(citations omitted). “Indeed, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover.” *Spectrum Int’l v. Sterilite Corp.*, 164 F.3d 1372, 1378–79 (Fed. Cir. 1988) (quotation omitted). “As a basic principle of claim interpretation, prosecution disclaimer promotes the public notice function of the intrinsic evidence and protects the public’s reliance on definitive statements made during prosecution.” *Omega Eng’g, Inc.*, 334 F.3d at 1324.

Although, “less significant than the intrinsic record in determining the legally operative meaning of claim language,” the Court may rely on extrinsic evidence to “shed useful light on the relevant art.” *Phillips*, 415 F.3d at 1317 (quotation omitted). Technical dictionaries and treatises may help the Court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but such sources may also provide overly broad definitions or may not be indicative of how terms are used in the patent. *Id.* at 1318. Similarly, expert testimony may aid the Court in determining the particular meaning of a term in the pertinent field, but “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful.” *Id.* Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Id.*

DISCUSSION

A. Overviews of the Patent-in-Suit

The ‘129 Patent is titled “Personal Area Network with Automatic Attachment and Detachment” and relates to wireless communication between two or more devices located in close proximity to one another. More specifically, the ‘129 Patent relates to wireless communication between a processor unit and multiple peripherals. The ‘129 Patent discloses a Personal Area Network (“PAN”), which is managed by a hub device and can support wireless

“attachment” of multiple Personal Electronic Accessories (“PEAs”). ‘129 Patent at 3:10–32. The PAN is diagrammed in Figure 1:

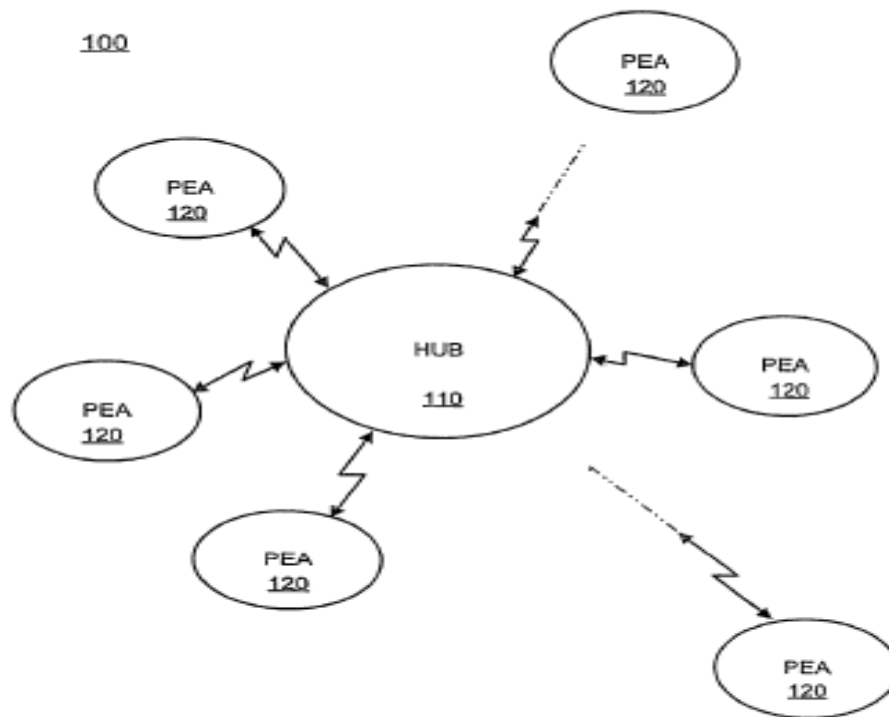


FIG. 1

The PAN 100, as shown in Figure 1, contains a single hub device (110), located in the center of the diagram, and surrounded by multiple PEAs (120). *Id.* at 3:27–29.

Plaintiffs accuse Defendants of infringing claims 43, 45–49, 51–53, 55, 57–59, 61, 63–64, 75, 79, 81, 95, 111, 124–129, 132, 134, 137, 140, 145–148, and 156, all of which depend from Claim 14 and which are referred to by the parties as “hub device claims.” PLS.’ BR. at 4–5. Plaintiffs also accuse Defendants of infringing claims 221, 223–227, 229, 233, 236–237, 257,

259, 262–263, 302–304, 306, 311, 323, 334, all of which depend from Claim 27 and which are referred to by the parties as the “peripheral device claims.” *Id.* at 5.

B. Disputed Terms

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
1. “MAC address”			
129: 43, 221	“an address that uniquely identifies a device or group of devices on a shared communication medium”	“a device identifier created by the hub device”	“a device identifier generated by the hub device”

Plaintiffs rely on the claims to support their proposed construction, citing Claims 43 and 221 as examples:

43. The hub device according to claim 14, wherein the hub device is configured such that a plurality of MAC addresses is capable of being used for identification in association with the first peripheral device. (‘129 Patent at 16:41–44).

221. The peripheral device according to claim 27, wherein the peripheral device is configured such that a plurality of MAC addresses is capable of being used for identification in association therewith. (‘129 Patent at 26:26–29).

PLS.’ BR. at 10.

Plaintiffs contend that the ‘129 Patent discloses a MAC address consistent with the ordinary meaning of MAC address as understood by one of ordinary skill in the art. Plaintiffs cite the rules and conventions of the Institute of Electrical and Electronic Engineers (“IEEE”) as well as dictionary definitions to support their proposition that a MAC address uniquely identifies a device or group of devices. *See, e.g.*, PLS.’ BR. at 11, citing IEEE COMPUTER SOCIETY, IEEE STANDARD FOR LOCAL AND METROPOLITAN AREA NETWORKS: OVERVIEW AND ARCHITECTURE 20–23 (2001); FRANK HARGRAVE, HARGRAVE’S COMMC’NS DICTIONARY at 313 (IEEE Press

2001) (defining MAC address as: “a 48 bit number unique to each network interface card (NIC). Generally, the number is programmed into the NIC at the time of manufacture; hence, it is LAN and location independent.”); HARRY NEWTON, NEWTON’S TELECOM DICTIONARY 450 (CMP Books 2002) (discussing a MAC address as: “in the form of a 48-bit number, formally known as an EUI-48 (Extended Unique Identifier-48), which is unique to each LAN (Local Area Network)”). Plaintiffs argue that this ordinary meaning is consistent with the disclosure of the ‘129 Patent, whereby MAC addresses can be both universally administered addresses or locally administered addresses. PLS.’ BR. at 11–12.

Defendants argue that the term “MAC address,” as used in the ‘129 Patent, has a meaning other than the ordinary meaning argued by Plaintiffs. DEFS.’ BR. at 4. Specifically, Defendants point out that MAC address is defined as “Media Access address” in the ‘129 Patent, which is different than the customary “Medium Access Control address.” *Id.* Defendants similarly point to the inventor’s own documents which refer to MAC as “Media Access,” not “Medium Access Control,” suggesting the inventor acted as his own lexicographer in defining the term “MAC address.” *Id.* at 5. In this regard, Defendants assert that the only embodiment disclosed by the ‘129 Patent shows the hub device creating and assigning the MACs. *Id.* at 10. (the hub “assigns a MAC address to the PEA”) ‘129 Patent at 11:2–4. Therefore, Defendants argue that Plaintiffs’ proposed construction encompasses a network not disclosed by the ‘129 Patent or contemplated by the patentee. DEFS.’ BR. at 10–11.

On the lexicography issue, Plaintiffs reply that there is not a clear intent by the patentee to change the intended meaning of “MAC address” evidenced in the ‘129 Patent. REPLY at 1. Further, Plaintiffs contend the patentee’s use of “Media Access” is insignificant because it is merely the plural form of the singular noun “Medium.” *Id.* Plaintiffs also contend that

Defendants’ construction excessively complicates an infringement analysis because one would be required to determine (1) whether an address was created by a particular device; and (2) whether that device was a hub device. PLS.’ BR. at 13. Finally, Plaintiffs argue that Defendants’ construction, which requires creation by the hub device, would exclude dependent claims involving “self-selected MAC addresses (AMACs)” and “attach MAC (AMAC) addresses” used during peripheral device attachment. REPLY at 3; ‘129 Patent at 7:61-62; 10:50-51.

Turning first to whether the patentee acted as his own lexicographer, the ‘129 Patent suggests that the patentee did in fact define MAC address in his own unique way. “When a patentee acts as his own lexicographer in redefining the meaning of particular claim terms away from their ordinary meaning, he must clearly express that intent in the written description...the statement in the specification must have sufficient clarity to put one reasonably skilled in the art on notice that the inventor intended to redefine the claim term.” *Merck & Co. v. Teva Pharms. USA, Inc.*, 395 F.3d 1364, 1370 (Fed. Cir. 2005) (citations omitted). “The specification acts as a dictionary ‘when it expressly defines terms used in the claims or when it defines terms by implication.’” *Bell Atl. Network Servs., Inc.*, 262 F.3d at 1268 (quoting *Vitronics Corp.*, 90 F.3d at 1582).

Here, in the specification, the patentee expressly defined MAC address as “Media Access address” (“[e]ach device is identified by a Media Access (MAC) address”). ‘129 Patent 3:31–32. The specification then goes on to consistently discuss the generation and assignment of the MAC address by the hub device. (“The Hub 110 then assigns a MAC address to the PEA address...” 11:2–3; “the Hub 110 sends the new MAC address 610 in an attachment assignment message to the now-identified PEA...” 11:55–57; “[t]he unattached PEA 120 then waits for an attach-assignment with an assigned MAC address from the Hub 110” 12:22–24; “a hub device

connected to multiple peripheral devices, includes receiving an attach request from the unattached peripheral device, the attach request identifying the unattached peripheral device to the hub device; *generating a new address* to identify the unattached peripheral device in response to the received attach request” 1:64–67, 2:1–2 (emphasis added)). As is the case here, “terms coined by the inventor are best understood by reference to the specification.” *Bell Atl. Network Servs., Inc.*, 262 F.3d at 1271. The specification of the ‘129 Patent consistently describes a MAC address assigned and generated by the hub device in accordance with the disclosed invention, a PAN wherein all communication is orchestrated by the Hub. Therefore, the Court finds that the patentee did coin a new term, which should be construed in light of its express and consistent use in the specification. *Intervet Inc. v. Merial Ltd.*, 617 F.3d 1282, 1287 (Fed. Cir. 2010) (noting that “terms coined by the inventor are best understood by reference to the specification”).

The core of the parties’ dispute comes down to whether the “MAC address” must be created by the hub device. Plaintiffs argue that the self-selection of MAC addresses by the PEAs disclosed in the ‘129 Patent supports their position that “MAC address” has its plain and ordinary meaning, and regardless, has a meaning broader than Defendants’ suggestion that it be created only by the hub device. Specifically, Plaintiffs point to the following portion of the specification: “[e]ach attaching PEA 120 selects a new AMAC at random from the indicated range when it hears the heartbeat.” ‘129 Patent at 11:30–31. While the PEA selects a new AMAC at random, the specification goes on to disclose that it is the hub device that creates the “range” of addresses from which the PEA selects. (“the Hub 110 occasionally indicates a large AMAC range” 11:33–34; “the Hub 110 may select a small range of AMACs” 11:37–38). Thus, although self-selection does occur, it occurs only among what is made available by the hub

device. Plaintiffs argue that a construction including the creation of the MAC address by the hub device would conflict with the disclosure of self-selecting peripheral devices. The specification makes it clear, however, that no such conflict exists. Similarly, the fact that the specification also states that the hub device has its own MAC address does not present any conflict with the MAC address being generated or assigned by the hub device. Therefore, the Court finds the purported conflict presented by Plaintiffs unpersuasive.

Finally, Plaintiffs make claim differentiation arguments to support their proposal that MAC address has a broader meaning. Plaintiffs point to Claim 14 to show that what is being claimed in step (iii) includes a “first peripheral device identifier,” an identifier that is not a MAC address. Plaintiffs then contrast Claim 14 with its dependent Claim 43, where the named identifier is a MAC address. Plaintiffs contend that an identifier is therefore broader than MAC address, and accordingly, MAC address should be construed more broadly because the patentee is signaling that the claims should not be limited through his use of multiple identifiers. While such an argument may support a broader interpretation of the “first peripheral identifier,” it does not follow that therefore the meaning of MAC address in the dependent claim should also be interpreted more broadly. Plaintiffs’ claim differentiation argument as to Claim 50 should also be rejected. Claim 50, which depends from Claim 43, simply requires that the link layer, in particular, is responsible for the assignment of the plurality of MAC addresses. Finally, “claim differentiation is a rule of thumb that does not trump the clear import of the specification.” *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1331 (Fed. Cir. 2009).

The Court therefore construes “MAC address” as “a device identifier generated by the hub device.”

Claim Language	Plaintiff's Proposal	Defendants' Proposal	Court's Construction
2. “capable of being used for identification in association with the first peripheral device” “capable of being used for identification in association therewith”			
129: 43, 221	<p>No construction necessary</p> <p>Alternatively:</p> <p>“[T]he phrase ‘capable of being used for identification in association with the first peripheral device’ is understood to mean ‘capable of being used by the hub device to distinguish the first peripheral device from other devices.’”</p> <p>“Likewise, . . . the phrase ‘capable of being used for identification in association therewith’ is readily understood to mean ‘capable of being used to distinguish the peripheral device from other devices.’”</p>	<p>Indefinite, or alternatively,</p> <p>“capable of being used as the first peripheral device identifier / capable of being used as the peripheral device identifier”</p>	<p>“capable of being used to distinguish the first peripheral device from other devices”</p> <p>“capable of being used to distinguish the peripheral device from other devices”</p>

The “capable of” phrases in dispute are found in Claims 43 and 221 of the ‘129 Patent, and read as follows:

43. The hub device according to claim 14, wherein the hub device is configured such that a plurality of MAC addresses is capable of being used for identification in association with the first peripheral device. (‘129 Patent at 16:41–44).

221. The peripheral device according to claim 27, wherein the peripheral device is configured such that a plurality of MAC addresses is capable of being used for identification in association therewith. (‘129 Patent at 26:26–29).

In their briefing, Plaintiffs proposed no construction necessary on the basis that the “capable of” phrases are easily understood because they use commonly understood words and phrases. PLS.’ BR. at 24. Alternatively, Plaintiffs proposed the phrases be construed as: “capable of being used by the hub device to distinguish the first peripheral device from other devices;” and “capable of being used to distinguish the peripheral device from other devices.” *Id.* at 25. At the *Markman* hearing on December 20, 2012, the Court proposed the following constructions: “capable of being used by the hub device to distinguish the first peripheral device from other devices;” and “capable of being used to distinguish the peripheral device from other devices.” Based on the Court’s proposed constructions, Plaintiffs suggested the Court adopt its proposed constructions with the insertion “or subcomponents thereof” after “peripheral device.”

Defendants maintained that the “capable of” phrases are indefinite and filed a corresponding Motion for Summary Judgment on Invalidity for Indefiniteness (Doc. No. 248). In the alternative, Defendants proposed the Court construe the terms as “capable of being used as the first peripheral device identifier;” and “capable of being used as the peripheral device identifier.” DEFS.’ BR. at 22.

The parties agree as to the basic contours of a construction for the “capable of” phrases. Both parties agree that a MAC address is a device identifier and when used in the context of Claim 43, which depends from Claim 14, it identifies the first peripheral device. DEFS.’ BR. at

43; PLS.’ BR. at 25–26; REPLY at 9. The parties’ dispute lies with whether the construction should include the term “peripheral device identifier.”

The parties agree that the term “peripheral device identifier” means “an element that identifies a peripheral device.” (Doc. No. 231), at 2 (“JOINT CLAIM CONSTRUCTION”). However, the parties disagree as to its inclusion in the construction of the “capable of” phrases. Defendants’ argument for the inclusion of the “peripheral device identifier” in the construction of the “capable of” phrases is that it flows logically from the parties’ agreement that a “peripheral device identifier” identifies a peripheral device. DEFS.’ BR. at 24. Plaintiffs argue that because the patentee did not use the term “peripheral device identifier” in the “capable of” phrases, it would be improper to insert that term (although agreed) in the construction of those phrases. REPLY at 10. Plaintiffs stress that the failure to include the term “peripheral device identifier” is because the “plurality of MAC addresses” in the claims may be, but are not limited to being the peripheral device identifier as required by the claims. *Id.* Plaintiffs contend that, when read in the context of the claims in which they are present, the “capable of” phrases are readily understood to mean “capable of being used by the hub device to distinguish the first peripheral device from other devices;” and “capable of being used to distinguish the peripheral device from other devices.” PLS.’ BR. at 25.

The Court agrees with Plaintiffs that had the patentee wanted to include the term “peripheral device identifier” in the capable of phrases contained in Claims 43 and 221, he could have done so, as both claims depend from claims which include “peripheral device identifier.” When read in the context of Claims 43 and 221, Defendants’ construction conflates the terms “peripheral device identifier” and “MAC address” and complicates the claims for the finder of fact.

Rather than use the term “peripheral device identifier,” the claims use “a plurality of MAC addresses.” The specification discloses that MAC addresses may be used to distinguish one peripheral device from another. ‘129 Patent at Figs. 9B, 9C, & 11–12; 1:55–2:14; 3:31–32 (“Each device is identified by a Media Access (MAC) address.”), 3:60–4:3 (“The Hub 110 might also use MAC addresses to identify virtual PEAs within any one physical PEA 120. . . . The PEA 120 responds to the Hub 110 if it identifies its own MAC address or the Hub MAC address in the token and if the stream number in the token is active for the MAC address of the PEA 120.”), 8:18–22 (“The MAC address 610 and stream number 620 in the token 640 together specify a particular PEA 120 to transmit or receive data, or, in the case of the Hub’s MAC address 610, specify no, many, or all PEAs to receive data from the Hub 110 (depending on the stream number).”) & 11:55–56 (“The Hub 110 sends the new MAC address 610 in an attach-assignment message to the now-identified PEA 120 . . .”). These disclosures demonstrate that “capable of being used for identification in association” with peripheral devices refers to distinguishing different peripheral devices, or multiple virtual devices within a single physical device, that are attached to (or requesting attachment to) a network.

While the Court acknowledges the specification’s disclosure that a MAC address may identify a device as a whole, or multiple virtual entities within a single device, the Court finds the addition of “and subcomponents thereof” to the construction unnecessary. This addition would only raise ambiguity as to the meaning of “subcomponent,” a term not found in the ‘129 Patent, and confuse the plain language of the claims. The Court therefore construes “capable of being used for identification in association with the first peripheral device” and “capable of being used for identification in association therewith” as “capable of being used to distinguish the first peripheral device from other devices” and “capable of being used to distinguish the peripheral

device from other devices,” respectively.

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
3. “availability of the hub device for peripheral device attachment” “availability of the first peripheral device for communication with the hub device” “availability of the peripheral device for communication with the hub device”			
129: 14, 27	<p>“the hub device is available for unattached peripheral devices to establish an attachment relationship”</p> <p>“the [first] peripheral device is available to establish an attachment relationship with the hub device”</p>	<p>“availability of an identified hub device for attachment to any peripheral device”</p> <p>“availability of the [first] peripheral device for communication with the hub device in step (i)”</p>	<p>“availability of the hub device for attachment to any peripheral device”</p> <p>No construction necessary (agreed)</p>

In the “availability” briefing provided to the Court, the parties extensively disputed whether the message from the hub device indicated availability to all peripheral devices or only to unattached peripheral devices. PLS.’ BR. at 16–17; DEFS.’ BR. at 14. At the *Markman* hearing, the parties clarified that their real dispute is actually whether the message from the hub device, signaling its availability, is a general message sent to all devices, or whether the hub device targets the message to a specific peripheral device or group of devices.

At the *Markman* hearing, the parties agreed with the Court’s proposal that the term “availability of the [first] peripheral device for communication with the hub device” requires no construction. As to the term “availability of the hub device for peripheral device attachment,” the Court proposed the following construction: “availability of the hub device for attachment to any

peripheral device.”

Plaintiffs argue that the word “any” should not be included in the Court’s construction because it precludes the possibility that a message could be targeted to a specific device. Plaintiffs support their contention that a message could be targeted to a specific device by pointing to dependent claims that indicate the message might be broadcast. For example, Claims 32 and 33 indicate the “...transceiver is configured to receive a signal broadcast from the hub device...” and the “...transceiver is configured to receive a broadcast signal from the hub device...” ‘129 Patent at 16:4–8. Plaintiffs contend that because these dependent claims say the message might be a broadcast message, the message is differentiated and not limited to just a broadcast message. Similarly, Plaintiffs argue that because Claims 14 and 27 refer to the “hub device” and the “peripheral device” in the singular form and not in the plural, it supports their contention that a message may be targeted to one specific device. Accordingly, Plaintiffs suggested that the Court construe the phrase as “availability of the hub device for attachment to a peripheral device.”

Defendants counter that there is no dispute that the specification’s disclosed embodiments include only a message that is generally sent, and argue that there is nothing in the specification that would limit the message to something more specific. ‘129 Patent at 11:22–43 (The Hub 110 periodically broadcasts heartbeats...). Defendants also argue that the structure of Claim 14 suggests that the first message is sent out generally in step (i) for peripheral device attachment. (“send message to indicate the availability of the hub device for peripheral device attachment”) 14:44–46. This step, Defendants argue, is contrasted with the following steps, where, in the second step, a specific message is received from a specific device, and in the third step, communication is directed to a specific device. (“receive, from a first peripheral device, a

message indicating the availability of the first peripheral device for communication with the hub device;” and “send, to the first peripheral device, a signal including a first peripheral device identifier.”) 14:47–51. Defendants counter Plaintiffs’ differentiation argument by asserting it is not clear that by using the term broadcast, the patentee meant to differentiate from the general message disclosed in the specification and articulated in step (i) of Claim 14. Plaintiffs replied that Defendants are improperly reading the specification into the claim.

Step (i) of Claims 14 and 27 recite a general message indicating the availability of the hub device for peripheral device attachment. Claims 14 and 27 recite:

14. A hub device for use within a personal area network, comprising:
circuitry, and
a transceiver in communication with the circuitry, the hub device configured to cause the transceiver to
i) send a message to indicate the availability of the hub device for peripheral device attachment,
ii) receive, from a first peripheral device, a message indicating the availability of the first peripheral device for communication with the hub device,
iii) send, to the first peripheral device, a signal including a first peripheral device identifier,
iv) receive, from the first peripheral device, a response,
v) send a hub response to the first peripheral device, and
vi) receive, from the first peripheral device, a second peripheral response including the first peripheral device identifier. (‘129 Patent at 14:39–56)

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27. A peripheral device for use within a personal area network, comprising:
circuitry, and
a transceiver in communication with the circuitry, the peripheral device configured to cause the transceiver to
i) receive a sent message from a hub device to indicate the availability of the hub device for peripheral device attachment,
ii) send, to the hub device, a message indicating the availability of the peripheral device for communication with the hub device,
iii) receive, from the hub device, a signal including a peripheral device identifier,
iv) send a response to the hub device,
v) receive, from the hub device, a hub response, and

vi) send, to the hub device, a second peripheral response including the peripheral device identifier. (‘129 Patent at 15:39–56)

As between steps (i) and (ii) found in Claims 14 and 27, there is a transition from the message sent “for peripheral device attachment” in step (i), to “availability of the [first] peripheral device” in step (ii). Had the patentee wanted to indicate a specific targeted message in step (i) he could have done so, as was done with communication in step (ii) using the definite article “the” to indicate a specific device. This is further supported by the specification, which discloses a general message whereby the hub device sends “heartbeat” messages that can be received by any PEA within range. ‘129 Patent at 7:67–8:3 (referencing “the Hub’s use of its MAC address to broadcast its heartbeat 770...to all PEAs.”). As such, Plaintiffs’ differentiation argument is insufficient to conclude that the hub device targets a message to a specific peripheral device. “[C]laim differentiation is a rule of thumb that does not trump the clear import of the specification.” *Edwards Lifesciences LLC v. Cook Inc.*, 582 F.3d 1322, 1331 (Fed. Cir. 2009).

Therefore, the Court construes “availability of the hub device for peripheral device attachment” as “availability of the hub device for attachment to any peripheral device.” As to the remaining “availability” phrases, the parties agreed at the *Markman* hearing that no constructions were necessary.

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
4. “virtual entities”			
129: 45, 46, 224	“a simulation or emulation of physical entities, or subsystems of a system”	“emulation of physical entities”	“simulation of physical entities” (agreed)

At the *Markman* hearing, the parties agreed to the following construction for “virtual entities” proposed by the Court: “simulation of physical entities.”

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
5. “additional identifiers”			
129: 81, 95, 259	“one or more elements that identifies, other than the first peripheral device identifier”	“one or more elements that identifies, other than the first peripheral device identifier or a MAC address”	“one or more elements that identifies, other than the first peripheral device identifier”

With regard to the term “additional identifiers,” the parties seemingly agree on the basic contours of a construction. However, a dispute remains as to whether a MAC address can be an “additional identifier.” Defendants maintain that an “additional identifier” cannot be a MAC address. DEFS.’ BR. at 25. Specifically, Defendants argue that because “[t]he parties agree that both ‘MAC address(es)’ and ‘peripheral device identifier[s]’ are ‘identifiers’ that serve the function of ‘identif[y]ing’ devices, “[t]he inventor’s use of a different term, ‘additional identifiers,’ in Claims 81, 95, and 259 gives rise to a presumption that this phrase must refer to something other than the ‘identifier’ of a ‘MAC address’ referred to in the earlier claims.” *Id.* (citing PLS.’ BR. at 10 & 26–27). Plaintiffs argue that Defendants’ construction reads out the plain and ordinary meaning of the word “additional” because there is nothing about the word additional that would preclude “additional identifiers” from meaning simply more of the same type of identifier. REPLY at 10.

The resolution to the parties' dispute calls for the reconciliation of Claims 43 and 95.

Claims 43 and 95 recite:

43. The hub device according to claim 14, wherein the hub device is configured such that a plurality of MAC addresses is capable of being used for identification in association with the first peripheral device. ('129 Patent at 16:41–44).

.....
95. The hub device according to claim 43, wherein the hub device is configured to cause the transceiver to communicate between the hub device and the first peripheral device, utilizing one or more additional identifiers. ('129 Patent at 19:59–62).

“Additional identifier” is found in Claim 95, which depends from Claim 43, which depends from Claim 14. There is no dispute that all three claims discuss identifiers. Claim 14 contains the “first peripheral device identifier,” Claim 43 contains a “plurality of MAC addresses,” and Claim 95 contains “one or more additional identifiers.” ‘129 Patent at 14:51, 55–56; 16:42, 19:62. The dispute is whether “additional identifiers,” as used in Claim 95, must be something other than the plurality of MAC addresses in Claim 43. Defendants argue that, logically, “additional identifiers” as used in Claim 95 (which depends from 43 and 14) must be a third category of identifiers, something other than the “first peripheral identifier” used in Claim 14 and something other than the “plurality of MAC addresses” used in Claim 43. Again, Plaintiffs maintain that “additional identifiers” just means more identifiers, which could include more of the same type of identifiers.

There is nothing in the specification that directly resolves the dispute between the parties. However, the word “additional” as used in the claims and the specification is used in a manner consistent with its plain and ordinary meaning. (“[d]uring attachment..., the PEA 120 may have two additional active MAC addresses 610, the one it selected for attachment and the one the Hub 110 assigned to the PEA 120.”) ‘129 Patent at 9:13–16. Essentially, the dispute between the

parties revolves around the plain and ordinary meaning of the word “additional.” Defendants would read it to mean “other” while Plaintiffs would read it to mean “more.” However, both of these synonyms showcase that either interpretation is consistent with the plain and ordinary meaning of the word as used in the ‘129 Patent. These easily understood meanings are not mutually exclusive, although the parties’ dispute presents them to be. The ‘129 Patent gives no indication that the meaning should be limited to one interpretation or the other. Thus, “additional identifiers” could mean more of the same identifiers and/or other identifiers. Therefore, the Court finds it improper to further limit the meaning of “additional identifiers” to exclude “MAC addresses,” which are indisputably used in Claim 43 as identifiers.

Accordingly, in conjunction with the agreed upon portion of the parties’ construction, the Court construes “additional identifiers” to mean “one or more elements that identifies, other than the first peripheral device identifier.”

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
6. “reattachment”			
129: 262, 263	“reestablish an attachment relationship”	“initiating attachment after detachment caused by exceeding a predefined threshold”	No construction necessary (agreed)

At the *Markman* hearing, the parties agreed that no construction was necessary for the term “reattachment.”

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
7. “controlling retransmission”			
129: 55, 233	“exerting control over a repeated	Plain and ordinary meaning	“controlling a repeated

	transmission to the same addressee of a previously transmitted signal”		transmission of previously transmitted data” (agreed)
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At the *Markman* hearing, the parties agreed to the following construction proposed by the Court for the term “controlling retransmission:” “controlling a repeated transmission of previously transmitted data.”

Claim Language	Plaintiff’s Proposal	Defendants’ Proposal	Court’s Construction
8. “separate class of MAC address”			
129: 63	No construction necessary Alternatively, “separate class of an address that uniquely identifies a device or group of devices on a shared communication medium”	“MAC address with a different configuration”	“different category of MAC addresses” (agreed)

At the *Markman* hearing, the parties agreed to the following construction proposed by the Court for the term “separate class of MAC address:” “different category of MAC addresses.”

CONCLUSION

For the foregoing reasons, the Court adopts the constructions set forth above.

So ORDERED and SIGNED this 15th day of January, 2013.